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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/038,640

01/04/2002

Jonathan S. Stinson

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23869 7590 10/30/2007  
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EXAMINER

EREZO, DARWIN P

ART UNIT

PAPER NUMBER

3773

MAIL DATE

DELIVERY MODE

10/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/038,640

Applicant(s)

STINSON, JONATHAN S.

Examiner

Darwin P. Erez

Art Unit

3773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 14, 15, 17, 25, 52, 53, 55, 57-62, 64-68 and 72-93 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 14, 15, 17, 25, 52, 53, 55, 57-62, 64-68 and 72-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 6 and 76-93 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/8/07 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 6 and 76-93 rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,860,900 to Clerc et al. and in view of US 5,575,818 to Pinchuk.

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(claims **6**, **76**, **78**, **81**, **84**, **86**, **87** and **93**) Clerc discloses a stent (Fig. 6) comprising a tubular structure having a plurality of strands **336** woven to form multiple strand crossings; wherein the strands are selectively formed to provide a first tubular segment (**332,334**) and a second tubular segment **330**. As shown in Fig. 6, the strands within the second tubular segment **330** define an obtuse strand crossing angle that is greater than the obtuse strand crossing angle defined by the strands within first tubular segment (**332,334**) (col. 6, ll. 54-61). It is noted that a characteristic of a higher crossing angle results in a higher level of radially outward force and higher level of axial flexibility. Therefore, it would be inherent that the first tubular segment (**332,334**) will have a greater axial stiffness level but lesser radial force level than the second tubular segment **330**. It is further noted that Clerc discloses the first and second tubular segments having respective first and second nominal diameters when the tubular structure is in a relaxed state (Fig. 6) and wherein the tubular is radially compressible against an elastic restoring force to a predetermined diameter due to the stent being a self expandable stent.

Clerc fails to disclose the strands selectively formed to provide a plurality of first and second tubular segments.

Pinchuk discloses a similar type of stent, as shown in Fig. 7. The embodiment shown in the figure is directed towards a stent **700** having a single first tubular element **703** and a single second tubular element (locking ring) **714**. However, Pinchuk also discloses that this second tubular element (locking ring) can be disposed along the body

of the stent, which would also provide a plurality of discrete first tubular segments (col. 10, ll. 20-22).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Clerc to include a plurality of first and second tubular elements because having multiple second tubular elements will help better secure the stent in the blood vessel. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a plurality of first and second tubular elements, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *In re Harza*, 274 F.2d, 669, 124 USPQ 378 (CCPA 1960).

(claims 77, 79, 80, 85, 88 and 89) The strand crossing angles for each of the modified first and second tubular segments are constant (substantially the same), therefore, the axial stiffness levels for each of the tubular segments are substantially the same (the same reason applies for the radial force levels).

(claims 82, 83, 90 and 91) Modifying the stent of Clerc to have a plurality of first and second tubular elements, as stated above, will maintain the diameter of the original first and second tubular element. Thus, Clerc still fails to disclose the nominal diameter of the second tubular segment being larger than the first tubular element. However, Pinchuk not only discloses the benefit of having multiple first and second tubular elements, but Pinchuk also discloses that the second tubular element can have a larger diameter than the first tubular element (Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

second tubular element of Clerc to have a larger diameter because having a larger diameter will help secure/lock the stent onto the tissue wall of the blood vessel.

(claim 92) Clerc discloses the nominal diameter of both the first and second tubular segment as being substantially the same (Fig. 6).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 6 and 76-93 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darwin P. Erezzo whose telephone number is (571) 272-4695. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darwin P. Erezol  
Examiner  
Art Unit 3773

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